

E. A. FAGERLUND.
SWITCH.
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1,351,161.

Patented Aug. 31, 1920.

Fig. 1.

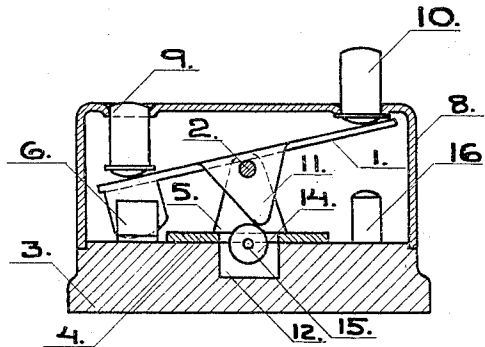
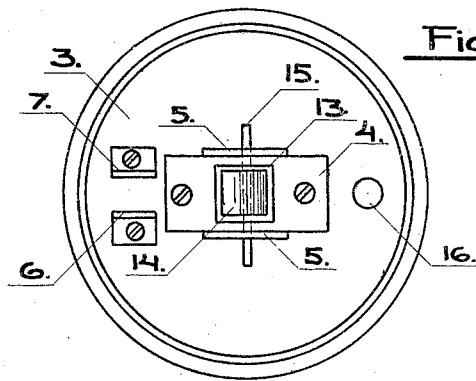


Fig. 2.



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SWITCH.

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To all whom it may concern:

Be it known that I, ERIK ARTUR FAGERLUND, engineer, subject of the King of Sweden, residing at Stockholm, Sweden, have invented certain new and useful Improvements in Switches, of which the following is a specification.

This invention relates particularly to that type of electric switch suitable for lighting installations, in which the movable contact member is a swing lever or the like co-acting with a resilient locking device, the said swing lever being operated either by push buttons, or directly by a handle attached to the contact member, or in some other suitable way.

Switches of this type are well known, in which the resilient locking device consists of a spring actuated roller or the like which, when operated by the contact member, moves rapidly to one or the other side of a projection co-acting with the roller. The object of the present invention is to provide a construction of the locking device which lends itself to a simple method of manufacturing. To this end the axle of the roller is made in the form of a flexible pin journaled at both ends in fixed bearings, so that the axle of the roller serves at the same time as a spring for the locking device. By this arrangement the construction of the switch is simplified to a great extent as compared with switches of this type previously known in which the roller is usually mounted so as to be moved in a guide being actuated by a helical spring, said guide as well as the separate spring being dispensed with in the present construction whereby also a saving of space is attained.

The accompanying drawing illustrates a push button switch provided with a resilient locking device according to the invention. Figures 1 and 2 show the switch in sectional and plan views respectively the cover and the swing lever being removed in Fig. 2.

The switching member of the switch consists of a swing lever 1 pivotally mounted on a pin 2 journaled in two lugs 5 projecting from a plate 4 screwed to the switch base 3. The lever 1 in the known manner closes the contact between two connection contacts 6 and 7 screwed to the switch base, and is

operated by two push buttons 9 and 10 guided in the cover 8. From the middle of the lever 1 an arm 11 projects, which co-operates with the roller 14, provided in a recess 12 in the switch base and the corresponding opening 13 in the plate 4, said roller 14 being carried by a flexible pin 15 passing through the roller and journaled at its ends in grooves on the upper surface of the switch base, the pin being retained in said grooves by the plate 4.

The lever 1 is maintained in the closing position shown by the friction between the contact pieces and also by the resilient locking device 14. When pushing the breaking button 10 the swing lever is at first moved against the action of the locking device 14, 15 and then through the influence of this locking device into the breaking position in which it is retained, the arm 11 being then situated on the opposite side of the roller 14. The movement of the swing lever is limited by a projection 16 fixed to the switch base.

Claims.

1. In an electric switch the combination with a base and a contact swing lever, of a resilient locking device for said lever consisting of two cooperating members, one of said members being mounted on the lever and the other on the base, one of said members being in the form of an arm and the other member comprising a roller and a flexible pin carrying and forming the axle of said roller, substantially as described.

2. In an electric switch the combination with a base provided with a recess having opposed notches in the side walls thereof, an apertured plate secured to the base, a contact lever pivoted above the plate, and cooperative means for locking the lever with respect to the base including a flexible pin journaled in the notches, a roller carried by the pin and positioned in the recess and an arm carried by the lever medially of the ends for coacting with the flexibly and rotatably mounted roller.

In testimony whereof I affix my signature in presence of two witnesses.

ERIK ARTUR FAGERLUND.

Witnesses:

JACOB BAGGE,
GEORGE D. HOPPER.